Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Carpenter of that city, a correspondent of this Institution, and stating that at the request of the latter, he had transmitted for the cabinet of the Academy, the specimens of Tapir fossils, described and figured by Dr. Carpenter in Silliman's Journal, New Series, No. 2.

A letter was read from Prof. Walter R. Johnson, addressed to Dr. Morton, dated Washington, October 18, 1848, recommending to the Academy to memorialize Congress on the advantage and importance of an examination into the Natural History of the Southern portion of Chili, and of adding one or more naturalists to the astronomical expedition now fitting out by the U. S. Government for that region, under the command of Lieut. J. M. Gilliss U. S. N. Referred to a Committee consisting of Dr. Morton, Dr. Bridges and Mr. Vaux.

Mr. Cassin read a communication from Mr. Wm. S. Pease, intended for publication, describing the geological features of the district of country lying between Puebla and the Gulf of Mexico, with some remarks on its Natural History. Referred to Mr. Cassin, Dr. Townsend, and Mr. Vaux.

Mr. Cassin also presented a Catalogue of Birds, collected by Mr. Wm. S. Pease, during the march of the Army of the United States from Vera Cruz to the city of Mexico. Referred to Drs. Townsend, Gambel and Woodhouse.

October 31*st*, 1848.

Vice President Morton in the Chair.

The Committee on Mr. Cassin's description of a new Tanager, reported in favor of publication.

Description of a new Tanagra, in the Collection of the Academy of Natural Sciences of Philadelphia.

By John Cassin.

Tanagra *nigro-aurita*, nobis.

Superior and point of the inferior mandible, black,—other portions of the inferior mandible, yellow.

Head above, chin and throat, ending in a point on the breast, crimson.

A broad stripe from the base of the bill, including the eye and ear, glossy black. This stripe completely separates the crimson of the upper part of the head from that of the throat.

Entire upper surface of the body, except the head, black, which is also the color of the wings and tail. Under parts of the body from the breast, white.

Legs, in the dried skin, nearly black.

Total length of skin, from tip of bill to end of tail, about 6½ inches; wing 3 1-10th; tail 2 8-10th inches.

Hab. Rio Negro, South America.

This species very much resembles both *Tanagra gularis*, Linn., and *capitata*, D'Orbigny, from either of which it may be distinguished by its black nares and ears, and also by the absence of purple on the breast. In the species now described, of which I have seen six specimens, the throat and breast are of the same color, exactly as the upper part of the head, without the slightest appearance of the purple into which the crimson changes in both the species mentioned. The legs, also, in the present species, are nearly or quite black, in which respect they differ from those of *T. capitata*, which are yellow.

A specimen of this remarkable species was obtained in Europe by Mr. Edward Wilson, to whose valuable additions to the collection of the Academy I have frequently alluded. I have also seen other specimens, two of which I procured from a collection, brought from the Rio Negro by Mr. John Wülf, an intelligent merchant, formerly resident at Parà.

The Committee on the following communication by Dr. Hallowell, reported in favor of publication :—

Notes of the post-mortem appearances observed in a Cynocephalus porcarius, which died in the Menagerie at Philadelphia.

BY EDWARD HALLOWELL, M. D.

The right lung is greatly enlarged and tuberculous ; the tuberculous matter exists in the form of infiltration, and is disseminated in masses leaving intervening spaces of hepatized lung of a brick-red color, firm and resisting to the touch ; the greater portion of the lower lobe of this lung, as well as a very considerable part of the upper, is occupied with this matter ; the opposite lung is comparatively healthy, a few tuberculous deposits being observed at its root and apex, and also in the lower lobe, which is somewhat congested. Several of the bronchial glands are enlarged, one of them measuring fourteen lines in length. *Pericardium* pale, containing no serosity ; coronary veins much enlarged. *Abdomen.* Mucous membrane of œsophagus pale, apparently healthy ; the *liver* is of a dark-chocolate color, and has four lobes ; the second of these counting from the right is the largest ; the liver measures five and a half inches transversely, three inches antero-posteriorly, and one and a quarter in depth ; no tubercles are observed in it ; the *gall-bladder*, which lies in a sulcus upon the under surface of the largest lobe is moderately distended with bile, tinging its parietes a light-green color ; the *spleen* measures three and three quarter inches in length by one and a half in breadth in its broadest part ; it is elongated at its right extremity, tapering almost to a point ; the opposite extremity is rounded, the entire organ presenting a somewhat triangular form ; no tubercles are observed in any part of it ; its tissue is of a deep-purple color, almost black from congestion ; the stomach measures six inches transversely, by three and a half from the entrance of the œsophagus to its greater curvature ; its muscular fibres are very apparent ; the œsophagus enters it about the middle of the lesser curvature ; the mucous membrane of the stomach is of a brownish-red color near the pylorus, elsewhere of a pale onion tint ; no crypts are observable ; the *pancreas* measures three inches transversley, one and a quarter in its greatest breadth near its head ; the *large intestine*, including the cœcum, measures two feet nine and a half inches (Fr.) in length; the cœcum measures two inches five lines in length; the mucous membrane of the large intestine is of a greenish olive tint throughout; the isolated crypts are very distinct; the small intestine measures six feet two inches; the mucous membrane is apparently healthy, of a pale onion tint slightly reddened in portions; the isolated glands are very numerous near the upper extremity of the duodenum; there are no valvulæ conniventes; eight plaques of Peyèr are counted in the ileum; the largest is about one and a half inches in length; the mesenteric glands are healthy; the *kidneys* are of a brick-red color; tissue healthy; *bladder* not examined.

The Committee to whom was referred the following catalogue of Mexican Birds, reported in favor of publication.

Catalogue of Birds collected by Mr. Wm. S. Pease, during the march of the Army of the United States from Vera Cruz to the City of Mexico.

By JOHN CASSIN.

Upon publicity being given to the fact that the Department of War of the United States of America intended sending an expedition, to consist of both Naval and Military forces, against the city of Vera Cruz, Mr. Wm. S. Pease, Member of the Lyceum of Natural History of New York, and Correspondent of the Academy of Natural Sciences of Philadelphia, proposed to embrace an opportunity which would thus probably offer, of his accompanying the military force into Mexico.

Having succeeded in effecting a suitable arrangement, Mr. Pease joined the army under General Scott, at Vera Cruz, and continued with it until the final evacuation of the country.

The facilities for collecting and for observation possessed by Mr. Pease were necessarily of a restricted character, resulting from the position of the army in a hostile country, and particularly so during the marches, when it was constantly attended by bands of armed inhabitants, or guerillas, who hovered in its vicinity for the purpose of committing depredations upon persons who ventured away from the main body. Notwithstanding all disadvantages, however, Mr. Pease made very interesting collections of birds, insects and other productions of the country.

Mr. Pease represents himself as particularly indebted to Col. G. W. Hughes of the 1st Regiment Maryland infantry, and to Otis Hoyt, M. D., Surgeon of the Massachusetts volunteers, and medical director of the general hospital at Jalapa, whose kindness and encouraging treatment of Mr. Pease, are honorable to those gentlemen as friends of science, and worthy of the character of American officers.

1. *Spizaëtus tyrannus*, (De Wied) Pl. col. 73.

From the neighborhood of Perote;—an adult female.

2. *Herpetotheres cachinnans*, (Linn.) Viell. Gal. 19.
3. *Falco sparverius*, Linn. Aud. Birds of Am. pl. 42.

Mr. Pease observes: " Only found about the upper part of the *tierra templada*, very common."

4. *Astur nitidus*, (Lath.) Pl. col. 87.
5. *Micrastur guerilla*, nobis (n. s)

Adult ♀?.—Entire upper surface of the body, head, wings and tail, hair brown, a shade darker on the head. Feathers on the cheek and jaw, brown, which color forms a partial collar on the front of the neck.

Throat, fore neck, abdomen and under tail coverts, white, with a few brown spots or bars on the latter.

Neck encircled by a narrow band of white, all the feathers of which are tipped or edged with brown.

Breast, flanks and thighs, white, every feather having about three bands of the same brown as the back.

Edge of the wing at the flexure and inner wing coverts, white; many of the feathers with lunated spots of brown. All the quill feathers with broad white bars on their inner webs; fifth primary longest.

Upper tail coverts spotted with white. Tail with four or five narrow white bars, and tipped with white.

Total length of skin, from tip of bill to end of tail, about 15 inches, wing 7, tail 6½ inches.

Young ♀?—Under parts tinged with fulvous or buff. Breast, flanks and thighs with the bands much narrower, and the throat with a more decided brown collar.

Feathers of the back and wing coverts, with ferruginous and white spots. Upper tail coverts with the white markings more numerous.

Superciliary feathers white, tipped with brown.

Total length of skin, from tip of bill to end of tail, about 14 inches, wing 6½, tail 6 inches.

Hab. Near Jalapa, Mexico.

This species considerably resembles some stages of plumage of the *M. xanthothorax* (Cuv.) and the *M. leucauchen*, (Temm.) Pl. col. 92, 306, (which are probably identical.) It may readily be distinguished from either of those by the entire absence of the rufous chesnut color of the breast and back, and by the much broader, and lesser number of the bands upon the under surface of the body.

In the species now described, the character of the white markings of the tail is also different from that of *M. xanthothorax* or of *leucauchen*, and more approaches that of the larger species, *M. brachyterus*, (Cuv.) These markings are broad and truncated at the shaft of the feather, instead of ending acutely and forming triangles, as in those species.

Two specimens (♂ and ♀.?) were brought by Mr. Pease; a third specimen of the same species, in more adult plumage, was previously received from Paris, in the collection made by Mr. Edward Wilson.

6. *Accipiter fuscus*, (Gm.) Falco velox, Wilson, Am. Orn. 45, 46.

Near Jalapa all the year. The two specimens (nearly adult and young ♀) brought by Mr. Pease, are perfectly similar to others obtained in the vicinity of this city. In both specimens the tail is quite even, in which respect they differ from Mr. Swainson's description of *A. Mexicanus*.

7. *Accipiter Cooperi*, (Bonap.) Aud. Birds Am. pl. 36, 141.

A young male from near Jalapa.

Dr. Kaup, in the Isis, 1847, page 178, and Mr. Gray, in List of specimens of Birds in the British Museum, give *Accipiter Cooperi* (Bonap.) as a synonyme for

Accipiter pileatus (De Wied) Pl. col. 205. This is not correct, as may readily be ascertained by reference to numerous specimens of both those species in the collection of this Academy.

In fact but a small degree of resemblance exists between any age or sex of the two species, so far as I have seen. The *A. Cooperi*, is much the larger, nor have I ever seen a specimen of this species assuming plumage at all approaching that represented in Pl. col. 205.

8. *Circus cyaneus*, (Linn.)

Young birds from near Jalapa.

9. *Ephialtes atricapilla*, (Natt.) Pl. col. 145.

10. *Syrnium* ——— ?

A species to which I am not at present prepared to attach a specific name. I have reason to suppose that it is one of the species which Mr. Gray has named in his List of the Rapacious birds in the British Museum, of which no description has come under my notice, if published.

11. *Nyctidromus Derbyanus*, Gould. Icon. Av. ii. pl. 2.

A young bird from the neighbourhood of Jalapa, where it lives all the year.

12. *Momotus brasiliensis*, (Lath.)

Near Jalapa, found in thickets, iris red.

In the specimen brought by Mr. Pease, and also in two others from Mexico in the Rivoli collection, the crown of the head is much lighter coloured than is usual in South American specimens.

13. *Trogon mexicanus*, Swainson, Gould. Mon. Pl. 2.

14. *Trogon exalapensis*, Du Bus, Esquisses Orn. I. pl. 2.

Two males from the neighbourhood of Jalapa.

15. *Trogon ambiguus ?* Gould. Mon. pl. 4.

A young bird, sufficiently ambiguous at least to be referred to this species. Of these three species, Mr. Pease has the following note : " Live on the *tierra templada* the greater part of the year, in the thickets bordering small streams, very shy, but when alarmed flying only a short distance and endeavoring to conceal themselves. The plumage appears to be very slightly attached to the skin, and if you are so unfortunate as to wound a specimen, it is almost entirely lost in the struggles of the bird."

16. *Alcedo americana*, Gm. pl. Enl. 591.

Neighbourhood of Jalapa, all the year.

17. *Alcedo vestita*, Lesson. Traite, i. p. 242.

I give this name on the faith of labels attached to specimens in the Rivoli collection, M. Lesson's description being too short to enable me to identify the species satisfactorily.

18. *Cyanocorax ornatus*, (Lesson.) Rev. Zool. 1839, p. 41.

On the sides of the mountains all the year.

19. *Cyanocorax peruvianus*, (Gm.) Le Vaill. Ois. de Par. 46.

The specimen brought by Mr. Pease, agrees exactly with the description of *Garrulus luxuosis*, Lesson, Rev. Zool. 1839, p. 100, which is also Mexican. I can find no difference, however, between the present specimen and the young *C. peruvianus*, from South America.

Mr. Pease notes: "This species lives on the sides of the volcanoes all the year, Mexican name, *pepe verde*. Very similar in its habits to the other species brought by me, all of which are very numerous on the *tierra templada*, and the hills bounding the plains of Perote and Puebla on the east."

20. *Cyanocorax concolor*, Cassin. Proc. Acad. Nat. Sci., Philada., Feb. 1848.

The second specimen of this species which has fallen under my notice. It differs in no respect from my description, except, perhaps, that the feathers of the head are slightly elongated or subcrested.

Of this species Mr. Pease remarks: "Common on the hills bordering the plains of Puebla, about Pinal and the mountains skirting the valley of Mexico on the east; remains all the year; difference of the sexes in size alone. Iris light brown."

21. *Sturnella hypocrepis*, Wagler. Isis, 1832, p. 281.

A species much resembling the common *S. ludoviciana*, but differing in several important characters. It may easily be distinguished by its shorter and more pointed bill, and smaller size.

This species is well described in De Sagra's Cuba, under the name of *S. ludoviciana.*

22. *Icterus melanocephalus*, Wagler. Isis, 1829, p. 756.

Icterus Audubonii, Giraud. New species of N. A. birds, 1841, (folio edition.)

Common in the neighborhood of Jalapa, and also found on the *tierra caliente;* called by the Mexicans, *calandria iquimite*, from the name of the fruit which it feeds upon. Iris yellowish white.

23. *Icterus gularis*, (Licht.) Des Murs. Icon. Orn. i. pl. 9.

24. *Yphantes Baltimore*, (Linn.)

25. *Agelaius æneus*, (Licht.) Isis, 1827, p. 758.

Common in the vicinity of the Puente Nacional.

26. *Guiraca ludoviciana*, (Linn.)

Jalapa, in February, March, and April.

27. *Guiraca cœrulea*, (Linn.)

Jalapa.

28. *Guiraca melanocephala*, Swainson. Aud. Birds of Am. 373.

Common near Jalapa, in February, March, and April.

29. *Embernagra albinucha*, D'Orb. et La Fres. Rev. Zool. 1838, p. 165.

Jalapa: iris light brown.

30. *Embernagra brunnei-nucha*, La Fresnaye. Rev. Zool. 1839, p. 97.

Jalapa; iris brown.

31. *Saltator atriceps*, Lesson. Gervais. Atl. de Zool. pl. 28.

On the hills near Jalapa, in December, January and February. Iris light brown.

32. *Saltator rubicus*, Viell. T. flammiceps, Temm. Pl. col. 177.

On the hills at the foot of Perote, living in thickets.

33. *Tanagra vicarius*, Lesson. Cent. Zool. 68.

Iris light brown; on the hills at the foot of the volcanoes.

34. *Pyranga æstiva*, (Gm.)

Near Jalapa.

35. *Euphonia elegantissima*, Bonaparte. Du Bus, Esq. Orn. pl. 8.

Neighborhood of Jalapa, in February, March and April.

36. *Euphonia occipitalis*, Du Bus. Esqu. Orn. part iii, pl. 14.

It is the female of this beautiful species, which is described and figured by M. Du Bus. The male is as follows:

Above, glossy parrot-like green, which is also the colour of the throat to the breast, where it is terminated by a narrow crescent of glossy chesnut brown. Breast, middle of the abdomen and under tail coverts, yellow. Flanks green. Occipital spot and semicollar on the front of the neck pale blue.

According to Mr. Pease, this species is found among low thickets, in ravines, at the foot of the mountains, from October to February; not common. Mexican name, *ysabelita*.

37. *Tiaris olivaceus*, (Linn.) Lath. Gen. Hist. v. p. 340.

Emberiza olivacea, Linn. Tiaris pusillus, Swainson.

Near Jalapa; iris nearly black.

48. *Tiaris nitens*, (Linn.)

Near Quarterpec, not common: iris nearly black.

39. *Carduelis magellanicus*, (Viell.) Aud. Birds of America, 394.

40. *Pteroglossus prasinus*, Licht. Gould, Mon. pl. 18.

Neighbourhood of Jalapa, during April, May, and June; iris chocolate colour.

41. *Crotophaga sulcirostra*, Swainson. Gervais, Atlas de Zool., pl. 17.

Male and female very similar in plumage; from the Puente Nacional, where, according to Mr. Pease, this species is numerous, flying in flocks; iris white.

42. *Piaya cayana*, (Linn.)

Mr. Pease's specimens are precisely similar to specimens from South America.

43. *Picus varius*, Linn.

Common on the lower part of the *tierra caliente* all the year.

44. *Melanerpes formicivorus*, Swainson. Pl. col. 451.

Upper part of the *tierra caliente*, and as far as the foot of the mountains; feeds on high trees; iris white; sexes similar.

45. *Centurus subelegans*, (Bonaparte.)

On the *tierra caliente*, and the hills above, all the year; sexes similar.

[To be continued.]

The Committee on the following paper by Mr. Pease reported in favor of publication.

Observations on the Geology and Natural History of Mexico.

By Wm. H. Pease.

Having noticed among the published correspondence from the army in Mexico, but little information respecting the natural features of that country, I take the liberty of presenting to the Academy the result of a few hasty observations made on a part of the route from Vera Cruz to the city of Mexico. But few opportunities for scientific investigations were afforded to those connected with the army, on account of the active operations they were incessantly engaged in, from the time of leaving the coast until the return of the army. I was enabled, however, principally in company with scouting parties, to visit that part of the country between the range of volcanoes, bounding the plains of Perote and Puebla on the east, and the Gulph of Mexico, comprising the greater part of the State of Vera Cruz, and to make some collections in Natural History.

The general outlines of the country I presume it is unnecessary for me to detail. The plains of Cuetlachlan, or the *tierra caliente*, as they are more usually called, comprise that region of country bordering the Gulph of Mexico. They are about twenty-five miles in width, extending back to the Plan del Rio by a gradual ascent of thirty feet per mile, with but few elevations or depressions, except at the river Antigua, and other small streams which pass through them in a north easterly direction. Beyond the Plan del Rio the ascent increases over a regular succession of hills and plains, until you reach the foot of the range of mountains in which the peaks of Orizaba, Perote and others are situated. This range forms the rim or eastern boundary of the plains of Anahuac, which are more commonly known as the *tierra templada*, and are about thirty-five miles in width. The sides and top of this mountain range are called the *terra fria*, immediately beyond which lie the great table lands of Mexico.

The table lands extend, with little or no variation in their general level, to the Cordilleras bordering the Pacific Ocean, though they are divided into several plains by ranges of volcanoes and porphyritic rocks.

The *tierra caliente* is bordered on the Gulph of Mexico by low sand hills, from four to six miles in width, not bare as has been represented, but covered with a thick chapparel, or thicket of Cacti and thorn bushes, to within reach of the water. Great numbers of fresh water and land shells are found on these hills and on the beach, thrown up from the Gulph, which may be referred to a living species.

After passing these hills a few miles, I noticed at one locality a layer of limestone. It is covered by a coarse conglomerate of volcanic and porphyritic rocks, which extends over the whole upper part of the *tierra caliente*, rendering the surface rough and stony. At the Puenta Nacional it is exposed to the depth of two hundred feet, interstratified irregularly with veins of fine sandstone. Deep gullies are worn through it to the rivers, by the drainage of the plains during the wet season. The rivers are the only source of irrigation, receiving no supplies in their course from the mountains to the coast.

The greater part of the plains is covered with a dense growth of vegetation, so thick that it would seem almost impossible for the soil to support more, and the trees and bushes are loaded with an innumerable variety of parasitical plants and vines, interlacing and binding them together, in such a manner as to render them absolutely impenetrable. On other parts, particularly between the conglomerate and the coast, the chapparel is more open, dotted with clumps of low dwarfish trees and Cacti, and affords grazing to herds of half wild cattle, in which the property of the inhabitants principally consists. To the south of Vera Cruz the cultivation of cotton has been introduced ; it is of white fine quality, but perhaps for want of proper cultivation the staple is very short, so that when worked it requires to be mixed with other varieties.

The inhabitants live mostly on the small bottom lands of the rivers, their crops consisting of corn, chili and frijoles. They are a puny and sickly people, being subject to intermittent and typhoid fevers, during the months after the close of the wet season. Though the temperature at the Puenta Nacional, in the months of September, October and November, averaged 80° at 3 P. M. with little variation, the atmosphere was so loaded with moisture that it was impossible to keep our fighting tools free from rust for twenty-four hours at a time, protect them as we might.

The animals met with at the Puenta Nacional and on the tierra caliente, are for the greater part common to Texas and the north; the common deer is abundant, though of small size; the red fox, the prairie wolf, and the spotted tiger cat are frequently met with, and the Puma also, though more frequently in the mountains above. Reptiles are exceedingly numerous, though of few species. The royal Iguano, as it is called, is found in the cliffs bordering the river Antigua, and grows to a very large size; one killed by a Mexican measuring nine feet in length. The flesh of this species, as well as that of others, is considered quite a delicacy by the inhabitants. I observed a curious habit of a species of lizard, which has not been noticed before to my knowledge; it is that of passing over the water in an erect position, resting on its hinder parts, and propelling itself by its hind feet, its tail lying horizontally on the water, acting as a rudder. In the San Juan and Antigua rivers I noticed an alligator which appeared to be different from our common species; the young, a specimen of which I caught, is entirely black, without the usual yellow markings on its back.

Land and fresh water shells are scarce; the beds of the streams being very stony; nearer the coast, however, they may perhaps be more abundant. After passing the tierra caliente, the ascent increases over the tierra templada, as above stated, to the foot of the mountains. The whole of the surface of this part of the country is much broken by low ranges of volcanic hills and deep ravines or barrancas, as they are called, of two to five hundred feet in depth, which run, commonly, at right angles from the mountain chain above. The city of Jalapa derives its name from that of an ancient Indian village a few leagues distant, and signifies " built among barrancas."

Most of the hills are of volcanic formation, though they are not all so, as I have seen stated. The limestone shows itself in the valleys at the foot of the mountains, and in the barrancas, when of sufficient width. It is, of course, very much altered from its connection with the volcanic rock, being uncrystallized and whitened. It is not fossiliferous, and, as far as I noticed, unstratified. At Quarterpec, a few leagues south of Jalapa, and at other places, it is burnt by the Indians, and the lime is sold in the neighbouring towns and cities.

The soil of the valleys is rich, and under cultivation produces during the whole year, rice, coffee, tobacco, sugar cane, corn and other vegetable productions, fruit, &c., of both tropical and temperate climes, in great abundance. The average of temperature I should place lower than Humboldt. During the months of January and February, there were several nights of severe frosts in the neighborhood of Jalapa and below, which stripped the trees on the hills of their foliage, but I was told it was of very unusual occurrence.

Every one who has visited this country must agree with Humboldt, that the region comprising the tierra templada and the eastern slope of the mountains above, is "one of the most beautiful and picturesque in the world." No other part of the world, perhaps, can present scenery of such sublime and picturesque beauty. When travelling over the rough and barren hills, strewn with volcanic rocks, the scene is suddenly changed by coming upon the edge of a barranca or ravine, its bottom lands several hundred feet below you, highly cultivated in fields of sugar cane, corn, &c., dotted with the straw-thatched cottages of the Indians, and presenting a most perfect panorama or picture of nature's own painting, enclosed, as it were, in a frame of black and jagged rocks, which form its perpendicular sides, without a vestige of vegetation growing upon them. Far off below, lays stretched out the tierra caliente, having the appearance of an immense park, bounded on the horizon by the Gulf; and yet, elevated as your position seems to be, on turning to look in the opposite direction, Orizaba, with its silvery cap of eternal snow, and the base and rocky peak of Perote, still stand above you eight or nine thousand feet.

In addition to the animals on the tierra caliente, I noticed the raccoon, the opossum, the bassaris astuta, or ring-tailed weasel, as it is called by the Mexicans, and several species of deer. I noticed also a porcupine, which struck me as different from the common species. The puma and jaguar are also met with in the mountains.

The mammalia of this part of Mexico seem to be identical with, or nearly allied to, more northern species, while the birds for the greater part are found also much farther south. Lizards are less numerous, but snakes more so than on the tierra caliente. The plants I should think more characteristic than either mammalia or birds, and present a rich field for investigation.

The two species of Jalapa root are collected in small quantities, only on the sides of the mountains by the Indians, the greater part exported being brought from the north and west of the city of Mexico.

In the neighbourhood of Jalapa, and on the road passing over the mountains, I noticed several beds and hills of sand, in some of which are deposits of the sulphate of lime, finely crystallized in the form of sand. I was told by the Mexicans that they had dug up here young clams, perhaps cyclas. I mention this fact in confirmation of my opinion that the plains of Anahuac above, or of Perote and Puebla, as they may be called, have been drained by one of the many revolutions (geological, not political,) which this country has passed through.

The eastern part of the plains above, for the distance of twelve or fifteen miles, is sandy; beyond are salt beds and soda. In many localities, at the depth of ten or twelve feet, I saw fossil fresh water shells of the genera Planorbis, Lymnea, Physa, and others, which it is reasonable to suppose once lived at the bottom of lakes which covered these plains, as well as that of the valley of Mexico.

The volcanic mountains which form the boundaries to the plains, are flanked by ranges of limestone hills, similar in character to those below on the tierra templada. Undoubtedly the range which bounds the plains of Anahuac to the east, is very rich in mineral treasure, as specimens of silver ore are frequently brought in by the Indians, but they, like those of Peru, conceal their knowledge of the localities with the utmost care. About three leagues from Perote I saw a vein of sulphuret of silver three feet in width, associated with blende and sulphate of copper.

Catalogue of the Tertiary Testacea of the United States.

By Henry C. Lea.

The following list is intended as a mere mechanical assistance to the student of our Tertiary Testacea. The descriptions of these species are scattered through the Transactions of learned Societies, Scientific Journals, Pamphlets, and other publications difficult of access, presenting a serious obstacle to any one endeavoring to identify specimens. Labouring under this difficulty myself, I prepared this catalogue, and from my experience of its convenience, I presume that it may be found of assistance to others. I have endeavoured to introduce the recent shells which have been observed in a fossil state, as far as I have seen them noted, but as no regular record has been kept of them, I fear that in that particular, especially, this list may be found imperfect. I have not attempted to determine the conflicting synonymes, either generic or specific. but have merely given the names with a reference to the publications in which they are alluded to or described.

REFERENCES.

Jour. Acad.—Journal of the Academy of Natural Sciences of Philadelphia.
Pro. Acad.—Proceedings " " " " "
Sil. Jour.—Silliman's American Journal of Science and Arts.
" " N. S. " " " " " New Series, (commenced in 1846.)
Trans. Phil.—Transactions of the American Philosophical Society.
Trans. Geol.—Transactions of the Geological Society of Pennsylvania.
Bost. Jour.—Boston Journal of Natural History.
Nat. Inst.—Bulletin of the National Institution.
Cont. Geol.—Contributions to Geology, by Isaac Lea.
Tert. Foss.—Fossil Shells of the Tertiary Formations of North America, by T. A. Conrad.
Med. Tert.—Fossil Shells from the Medial Tertiary of the United States, by T. A. Conrad.

CATALOGUE.

ACTEON.

A. Andersoni, Con., Pro. Acad. iii.
angulatus, H. C. Lea, Trans. Phil. ix.
costellatus, Con., Tert. Foss.
elevatus, Lea, Cont. Geol.
glans., H. C. Lea, Trans. Phil. ix.
globosus, H. C. Lea, " "
granulatus, H. C. Lea, "
idoneus, Con., Tert. Foss.
lævis, H. C. Lea, Sil. Journ. xl.
lineatus, Lea, Cont. Geol.
magnoplicatus, H. C. Lea, Sil. Journal, xl.
melanellus, Lea, Cont. Geol.
melanoides, Con., Jour. Acad. vi.
milium, H. C. Lea, Trans. Phil. ix.
nitens, H. C. Lea, " " "
novellus, Con., Jour. Acad. vii.
ovoides, Con., " " vi.
pomilius, Con., Tert. Foss.
punctatus, Lea, Cont. Geol.
A. pygmæus, Lea, Cont. Geol.
sculptus, H. C. Lea, Trans. Phil. ix.
simplex, H. C. Lea, " "
striatus, Lea, Cont. Geol.
turbinatus, H. C. Lea, Trans. Phil. ix.

ALIGENA.

A. lævis, H. C. Lea, Trans. Phil. ix.
striata, H. C. Lea, " "

AMPHIDESMA.

A. æquale, Say, Sil. Jour. xli.
æquatum, Con., Pro. Acad. i.
bellastriatum, Con., Nat. Inst. No. 2.
carinatum, Con., Jour. Acad. vi.
constrictum, Con., Sil. Jour. xli.
inæquale, Say, Jour. Acad. vii.
linosum, Con., Tert. Foss.
Mississippiense, Con., Pro. Acad. iii.
nuculoide, Con., Sil. Jour. xli.
protextum, Con., " "
subobliquum, " " "

A. subovatum, Say, Jour. Acad. iv.
subreflexum, Con., “ vii.
tellinula, Con., Sil. Jour. i. N. S.
transversum, Say, “ xxviii.

AMPULLARIA.

A. perovata, Con., Pro. Acad. iii.

ANATINA.

A. antiqua, Con., Jour. Acad. vii.
Clairbornensis, Lea, Cont. Geol.
tellinoides, H. C. Lea, Trans. Phil. ix.

ANCILLARIA.

A. altilis, Con., Tert. Foss.
lymneoides, Con., “
scamba, Con., “ “
staminea, Con., “
subglobosa, Con., “
tenera, Con., Jour. Acad. vii.

ANOLAX.

A. gigantea, Lea, Cont. Geol.
plicata, Lea, “ “

ANGUINELLA.

A. Virginiana, Con., Med. Tert.
ornata, Con., Sil. Jour. i. N. S.

ANOMIA.

A. ephippium, Linn., Jour. Acad. vii.
jugosa, Con., Pro. Acad. i.
Ruffini, Con., “ “

ARCA.

A. æquicostata, Con., Med. Tert.
arata, Say, Jour. Acad. iv.
brevidesma, Con., Med. Tert.
buccula, Con., “ “
cælata, Con., “ “
callipleura, Con., “ “
centenaria, Say, Jour. Acad. iv.
cuculloides, Con., Tert. Foss.
depleura, Con., Nat. Inst. No. 2.
idonea, Con., Tert. Foss.
improcera, Con., Med. Tert.
incile, Say, Jour. Acad. iv.
lienosa, Say, Sil. Jour. xli.
limula, Con., Tert. Foss.
lineolata, Con., Med. Tert.
maxillata, Con., Jour. Acad. vi.
Mississippiensis, Con., Pro. Acad. iii.
pexata, Say, Sil. Jour. xxiii.
plicatura, Con., Med. Tert.
ponderosa, Say, Sil. Jour. xxviii.
propatula, Con., Med. Tert.
protracta, Rogers, Trans. Phil. v.
rhomboidella, Lea, Cont. Geol.
scalaris, Con., Pro. Acad. i.
staminea, Say, Med. Tert.
stillicidium, Con., Tert. Foss.
subrostrata, Con., Jour. Acad. viii.
subsinuata, Con., Med. Tert.
transversa, Say, Sil. Jour. xxviii.
triquetra, Con., Pro. Acad. i.

ARTEMIS.

A. acetabulum, Con., Tert. Foss.
concentrica, Born, Jour. Acad. vii.
elegans, Con., Pro. Acad. i.

ASTARTE.

A. abbreviata, Con., Med. Tert.
arata, Con., “ “
callosa, Con., Tert. Foss.
Coheni, Con., Med. Tert.
concentrica, Con., Jour. Acad. viii.
cuneiformis, Con., Med. Tert.
exaltata, Con., Jour. Acad. viii.
lineolata, H. C. Lea, Trans., Phil. ix.
lunulata, Con., Jour. Acad. vii.
lyrata, Sil. Jour. xli.
minor, Lea, Cont. Geol.
minutissima, Lea, “
Nicklinii, Lea, “
obruta, Con., Jour. Acad. vii.
parva, Lea, Cont. Geol.
perplana, Con., Med. Tert.
planulata, Con., Nat. Inst. No. 2.
proruta, Con., Tert. Foss.
radians, Con., Med. Tert.
recurva, Lea, Cont. Geol.
sulcata, Lea, “ “
symmetrica, Con., Jour. Acad. vii.
tellinoides, Con., Sil. Jour. xxiii.
undulata, Say, Jour. Acad. iv.
ungulina, Con., Sil. Jour. xxiii.
varians, Con., Jour. Acad. viii.
vacina, Say, Jour. Acad. vii.

AVICULA.

A. argentea, Con., Pro. Acad. iii.
Claibornensis, Lea, Cont. Geol.
limula, Con., Tert. Foss.
multangula, H. C. Lea, Trans. Phil. ix.
trigona, Lam., Nat. Inst. No. 2.

BALANUS.

B. Finchii, Lea, Cont. Geol.
humilis, Con., Sil. Jour. ii. N. S.
incile, Con., Nat. Inst. No. 2.
ovularis, Lam., Sil. Jour. xli.
peregrinus, Morton, Jour. Acad. vii.
Proteus, Con., “ “ vii.
tintinnabulum, (?) Lam. “ vi.

BONELLIA.

B. lineata, Con., Jour. Acad. viii.
terebellata, Con., Nat. Inst. No. 2.

BUCCINUM.

B. altile, Con., Tert. Foss.
amœnum, Con., “
aratum, Say, Jour. Acad. iv.
avarum, Con., Sil. Jour. xxviii.
bilix, Con., Pro. Acad. i.
filicatum, Con., “ “
fossulatum, Con., “
frumentum, H. C. Lea, Trans. Phil. ix.

B. harpuloide, Con., Pro. Acad. i.
integrum, Con., Nat. Inst. No. 2.
interruptum, Con., Sil. Jour. xli.
laqueatum, Con., Tert. Foss.
lienosum, Con., Pro. Acad. i.
lunatum, Say, Sil. Jour. xli.
Mississippiense, Con., Pro. Acad. iii.
multirugatum, Con., Sil. Jour. xli.
obsoletum, Say, “ “
quadratum, Con., Nat. Inst. No. 2.
quadrulatum, H. C. Lea, Trans. Phil. ix.
parvum, H. C. Lea, Sil. Jour. xl.
perlatum, Con., Tert. Foss.
porcinum, Say, Jour. Acad. iv.
præruptum, Con., Pro. Acad. i.
prorsum, Con., Tert. Foss.
protractum, Con., Pro. Acad. i.
pusillum, H. C. Lea, Trans. Phil. ix.
sagenum, Con., Tert. Foss.
Sowerbii, Lea. Cont. Geol.
sexdentatum, Con., Pro. Acad. i.
trivittatum, Say, Jour. Acad. vi.
Tuomeyi, H.C. Lea, Trans. Phil. ix.

BUSIMUS.
B. Floridanus, Con., Sil. Jour. ii. N. S.

BULLA.
B. acuminata, Sow., Jour. Acad. vi.
crassiplica, Con., Pro. Acad. iii.
cylindrus, H. C. Lea, Trans. Phil. ix.
Dekayi, Lea, Cont. Geol.
occulta, Mighels, Bost. Jour. iv.
petrosa, Con., Sil. Jour. ii. N. S.
St. Hillairii, Lea, Cont. Geol.
subpissa, Con., Pro. Acad. iii.

BULLINA.
B. canaliculata, Say, Sil. Jour. xxviii.

BYSSOARCA.
B. cuculloides, Con., Sil. Jour. i. N. S.
lima, Con., Pro. Acad. iii.
Marilandica, Con., Med. Tert.
Mississippiensis, Con., Pro. Acad. iii.
protracta, Con., “ “ “

BYSSOMYA.
B. petricoloides, Lea, Cont. Geol.

CALYPTRÆA.
C. costata, Say, Sil. Jour. ii.
corrugata, Brod., “ i. N. S.
grandis, Say, Jour. Acad. iv.
pileolus, H. C. Lea, Trans. Phil. ix.
rugosa, Brod., Sil. Jour. i. N. S.
trochiformis, Lam. Nat. Inst. No. 2.

CANCELLARIA.
C. alternata, Con., Jour. Acad. vii.
alveata, Con., Tert. Foss.
babylonica, Lea, Cont. Geol.
biplicifera, Con., Jour. Acad. vii.
corbula, Con., Pro. Acad. i.
C. costata, Lea, Cont. Geol.
elevata, Lea, “ “
engonata, Con., Jour. Acad. viii.
funerata, Con., Pro. Acad. iii.
gemmata, Con., Tert. Foss.
lunata, Con., Jour. Acad. vi.
Mississippiensis, Con., Pro. Acad. iii.
multiplicata, Lea, Cont. Geo.
parva, Lea, “ “
perspectiva, Con., Jour. Acad. vii.
plagiostoma, Con., “ “ “
plicata, Lea, Cont. Geol.
pulcherrima, H.C. Lea, Sil. Jour. xl.
sculptura, Lea, Cont. Geol.
tesselata, Lea, “ “

CAPULUS.
C. lugubris, Con., Jour. Acad. vii.

CARDITA.
C. abbreviata, Con., Sil. Jour. xli.
alticosta a, Con., “ “ xxiii.
bilineata, Con., Pro. Acad. iii.
Blandingi, Con., Sil. Jour. i. N. S.
Carolinensis, Con., Pro. Acad. iii.
densata, Con., Pro. Acad. ii.
granulata, Say, Sil. Jour. xxviii.
perplana, Con., “ “ xli.
planicosta, Lam., Tert. Foss.
subquadrata, Con., Pro. Acad. iii.
tridentata, Say, Sil. Jour. xxvii.
vigintinaria, Con., Pro. Acad. iii.

CARDITAMERA.
C. arata, Con., Med Tert.
carinata, Con., Pro. Acad. i.
proctracta, Con., “ “ “

CARDIUM.
C. acuti-laqueatum, Con., Med. Tert.
craticuloide, Con., “ “
diversum, Con., Pro. Acad. iii.
eversum, Con., “ “ “
glebosum, Con., “ “ “
isocardia, Lam., Nat. Inst. No. 2.
laqueatum, Con., Jour. Acad. vi.
leptopleura, Con., Jour. Acad. viii.
magnum, Born, Sil. Jour. xxviii.
Nicoletti, Con., Jour. Acad. viii.
quadrans, Rogers, Trans. Phil. vi.
sublineatum, Con., Sil. Jour. xli.
Vicksburgense, Con., Pro. Acad. iii.
Virginianum, Con., Med. Tert.

CARICELLA.
C. demissa, Con., Pro. Acad. iii
doliata, Con., “ “
prætenuis, Con., “ “
pyruloides, Con., “

CASSIDARIA.
C. lintea, Con., Pro. Acad. iii.

CASSIS.
C. brevicostata, Con., Jour. Acad. vii.

C. cælata, Con., Jour. Acad. vii.
cælatura, Con., Pro. Acad. iii.
Hodgii, Con., Sil. Jour. xli.
Mississippiensis, Con., Pro. Acad. iii.
nuperus, Con., Tert. Foss.
Tatii, Con., Jour. Acad. vii.

CEMORIA.

C. oblonga, H. C. Lea, Trans. Phil. ix.

CERITHEUM.

C. bicostellatum, Con., Pro. Acad. iii.
Carolinense, Con., Sil. Jour. xli.
clavulus, H. C. Lea, Trans. Phil. ix.
curtum, H. C. Lea, " " "
dædaleum, H. C. Lea, " " "
dislocatum, Say, Jour. Acad. vii.
moniliferum, H. C. Lea, Trans. Phil. ix.
nassula, Con., Jour. Acad. vii.
siliceum, Con., Pro. Acad. iii.
solitarium, Con., Jour. Acad. vii.
striatum, Lea, Cont. Geol.
unilineatum, Con., Sil. Jour. xli.

CHAMA.

C. arcinella, Lam., Sil. Jour. xxviii.
congregata, Con., " " xxiii.
corticosa, Con., " " "
Mississippiensis, Con. Pro. Acad. iii.

CHENOPOS.

C. liratus, Con., Pro. Acad. iii.

CHITON.

C. transenna, H. C. Lea, Trans. Phil. ix.

CLATHRODON.

C. cuneatus, Gray, Jour. Acad. vi.

CONUS.

C. adversarius, Con., Sil. Jour. xxix.
Claibornensis, Lea, Cont. Geol.
diluvianus, Green, Nat. Inst. No. 2.
gyratus, Mortan, Jour. Acad. viii.
parvus, H. C. Lea, Sil. Jour. xl.
sauridens, Con., Tert. Foss.

CORBIS.

C. distans, Con., Tert. Foss.
lamellosa, Lam., " "
staminea, Con., Pro. Acad. iii.
undata, Con., Tert. Foss.

CORBULA.

C. Alabamiensis, Lea, Cont. Geol.
alta, Con., Pro. Acad. iii.
compressa, Lea, Cont. Geol.
contracta, Say, Jour. Acad. vii.
cuneata, Say, " " iv.
elevata, Con., Nat. Inst. No. 2.
elongata, Con., Pro. Acad. iii.
engonata, Con., Pro. Acad. iii.
gibbosa, Lea, Cont. Geol.
idonea, Con., Sil. Jour. xxiii.
inæqualis, Say, Jour. Acad. iv.
intastriata, Con., Pro. Acad. iii.
Murchisoniana, Lea, Cont. Geol.
nasuta, Conn., Tert. Foss.
C. onicus, Con., Sil. Jour. xxiii.

CRASSATELLA.

C. alæformis, Con., Jour. Acad. vi.
alta, Conn., Tert. Foss.
capri-cranium, Rogers, Trans. Phil. vi.
Marilandica, Con., Tert. Foss.
melina, Con., " "
Mississippiensis, Con., Pro. Acad. iii.
palmula, Con., Sil. Jour. i. N. S.
protexta, Con., Tert. Foss.
rhomboidea, Con., Sil. Jour. i. N. S.
turgidula, Con., Pro. Acad. i.
undulata, Say, Jour. Acad. iv.

CREPIDULA.

C. convexa, Say, Sil. Jour. xxviii.
cornu arietis, Lea, Cont. Geol.
cornucopia, H. C. Lea, Trans. Phil. ix.
costata, Morton, Jour. Acad. vi.
cymbæformis, Con., Pro. Acad. ii.
densata, Con., " " i.
dumosa, Con., Jour. Acad. vii.
fornicata, Say, Sil. Jour. xli.
glauca, Say, " " xxviii.
lamina, H. C. Lea, Trans. Phil. ix.
lirata, Con., Sil. Jour. xxiii.
plana, Say, " " xxviii.
ponderosa, H. C. Lea, Trans. Phil. ix.
spinosa, Con., Pro. Acad. i.
unguiformis, Lam., Nat. Inst. No. 2.

CRISTELLARIA.

C. rotella, Con., Sil. Jour. ii. N. S.

CRYPTOSTOMA.

C. perspectivum, Say, Nat. Inst. No. 2.

CUCULLÆA.

C. gigantea, Con., Jour. Acad. vi.
onochæla, Rogers, Trans. Phil. vi.
transversa, Rogers, " "

CULTELLUS.

C. Caribœus, Linn., Sil. Jour. i. N. S.

CUMINGIA.

C. tellinoides, Con., Nat. Inst. No. 2.

CYPRÆA.

C. Carolinensis, Con., Sil. Jour. xli.
lintea, Con., Pro. Acad. iii.
sphæroides, Con., " "

CYPRICARDIA.

C. arata, Con., Tert. Foss.

CYRENA.

C. Carolinensis, Bosc., Sil. Jour. xxviii.
densata, Con., Pro. Acad. i.

CYTHEREA.

C. æquorea, Con., Tert. Foss.
albaria, Say, Am. Con.
astartæformis, Con., Pro. Acad. iii.
Carolinensis, Con., Sil. Jour. xli.
comis, Lea, Cont. Geol.
concentrica, Born, Jour. Acad. iv.
convexa, Say, " " "

C. discoidalis, Con., Tert. Foss.
elevata, H. C. Lea, Trans. Phil. ix.
elevata, Con., Sil. Jour. i. N. S.
erycinoides, Lam., Nat. Inst. No. 2.
eversa, Con. Pro. Acad. ii.
Floridana, Con., Sil. Jour. ii. N. S.
gigantea, Lam., Jour. Acad. vii.
globosa, Lea, Cont. Geol.
Hydiana, Con., Tert. Foss.
Hydii, Lea, Cont. Geol.
imitabilis, Con., Pro. Acad. iii.
lenticularis, Con., Trans. Phil. vi.
liciata, Con., Pro. Acad. ii.
Marilandica, Con., Sil. Jour. xxiii.
metastriata, Con., Med. Tert.
minima, Lea, Cont. Geol.
Mississippiensis, Con., Pro. Acad. iii.
Mortoni, Con., Jour. Acad. vii.
Nuttalli, Con., " "
obovata, Con., " "
ovata, Rogers, Trans. Phil. v.
pandata, Con., Jour. Acad. vii.
perbrevis, Con., Pro. Acad. iii.
perovata, Con., Tert. Foss.
Poulsoni, Con., " "
pyga, Con., Pro. Acad. ii.
reposta, Con., Jour. Acad. vii.
Sayana, Con., Sil. Jour. xxviii.
semipunctata, Con., Jour. i. N. S.
sobrina, Con., Pro. Acad. iii.
sphærica, H. C. Lea, Trans. Phil. ix.
subcrassa, Lea, Cont. Geol.
subimpressa, Con., Pro. Acad. ii.
subnasuta, Con. Jour. Acad. viii.
trigoniata, Lea, Cont. Geol.

Delphinula.

D. aperta, H. C. Lea, Trans. Phil. ix.
arenosa, Con., Pro. Acad. iii.
concava, H. C. Lea, Trans. Phil. ix.
costulata, H. C. Lea, " " "
depressa, Lea, Cont. Geol.
globulus, H. C. Lea, Trans. Phil. ix.
lipara, H. C. Lea, " " "
lyra, Con. Jour. Acad. vii.
naticoides, H. C. Lea, Trans. Phil. ix.
obliquèstriata, H. C. Lea, " " "
plana, Lea, Cont. Geol.
trochiformis, H. C. Lea, Trans. Phil. ix.

Dentalium.

D. alternatum, Lea, Cont. Geol.
arciforme, Con., Sil. Jour. i. N. S.
attenuatum, Say, Jour. Acad. iv.
coarctatum, Lam., Sil. Jour. i. N. S.
dentale, Lam. " " "
Mississippiense, Con., Pro. Acad. iii.
thalloide, Con., Tert. Foss.
thallus, Con., Jour. Acad. vii.
turritum, Lea, Cont. Geol.

Diplodonta.

D. Americana, DeFrance, Sil. Jour. xli.

Dispotæa.

D. constricta, Con., Nat. Inst. No. 2.
corrugata, Brod., Sil. Jour. i. N. S.
costata, Say, Jour. Acad. iv.
dumosa, Con., Sil. Jour. xli.
grandis, Say, Jour. Acad. iv.
multilineata, Con., Sil. Jour. xli.
ramosa, Con., Jour. Acad. viii.
rugosa, Brod., Sil. Jour. i. N. S.

Donax.

D. funerata, Con., Pro. Acad. iii.
limatula, Con., Tert. Foss.

Egeria.

E. Bucklandi, Lea, Cont. Geol.
inflata, Lea, " "
nana, Lea, " "
nitens, Lea, " "
ovalis, Lea, " "
plana, Lea, " "
rotunda, Lea, " "
subtrigona, Lea, " "
triangulata, Lea, " "
veneriformis, Lea, " "

Ecphora.

E. quadricostatus, Con., Pro. Acad. i.

Emarginula.

E. arata, Con., Tert. Foss.

Erycina.

E. æquorea, Con., Tert. Foss.
rectilinearis, Con., Tert. Foss.

Erycinella.

E. ovalis, Con., Med. Tert.

Eulima.

E. eborea, Con., Pro. Acad. iii.
migrans, Con., " " "

Fasciolaria.

F. elevata, Lea, Cont. Geol.
Lamberti, Sow., Jour. Acad. vi.
mutabilis, Con., Jour. Acad. vii.
parvula, H. C. Lea, Trans. Phil. ix.
plicata, Lea, Cont. Geol.
rhomboidea, Rogers, Trans. Phil. vi.

Ficus.

F. Mississippiensis, Con., Pro. Acad. iii.

Fissurella.

F. alticosta, Con., Jour. Acad. vii.
catilliformis, Rogers, Trans. Phil. v.
Clairbornensis, Lea, Cont. Geol.
græca, Lam., Jour. Acad. vi.
Griscomi, Con., " " vii.
Marilandica, Con., " "
Mississippiensis, Con., Pro. Acad. iii.
nassula, Con., Med. Tert.
redimicula, Say, Jour. Acad. iv.
tenebrosa, Con., Tert. Foss.

Fistulana.

F. elongata, Desh., Nat. Inst., No. 2.
larva, Con., Sil. Jour. i. N. S.

Fulgoraria.

F. Mississippiensis,Con.,Pro. Acad. iii.

Fulgur.

F. canaliculatus, Linn., Jour. Acad. iv.
carica, Gmel.
contrarius, Sil. Jour. xxxix.
coronatus, Con., Nat. Inst. No. 2.
excavatus, Sil. Jour. xxxix.
fusiformis, Con., Nat. Inst. No. 2.
incilis, Con., Sil. Jour. xxiii.
maximus, " " xli.
perversus, Lam., " "
rugosus, Con., Pro. Acad. i.
tuberculatus, Con., Nat. Inst. No. 2.

Fusus.

F. acutus, Lea, Cont. Geol.
altilis, Con., Tert. Foss.
anomalus, H. C. Lea, Trans. Phil. ix.
bicarinatus, Lea, Cont. Geol.
bellus, Con., Tert. Foss.
(?) cannabinus, Con., Pro. Acad. i.
cinereus, Say, Sil. Jour. xxviii.
Conybeari, Lea, Cont. Geol.
Cooperi, Con., Jour. Acad. vii.
crebrissimus, Lea, Cont. Geol.
decisus, Con., Tert. Foss.
decussatus, Lea, Cont. Geol.
Delabechii, Lea, " "
devexus, Con., Pro. Acad. i.
errans, Con., Jour. Acad. vi.
exilis, Con., Tert. Foss.
explicatus, Con., Tert. Foss.
Fittonii, Lea, Cont. Geol.
inauratus, Con., Tert. Foss.
irrasus, Con., Jour. Acad. vii.
limulus, Con., Tert. Foss.
longævus, Lam., Sil. Jour. i. N. S.
magnocostatus, Lea, Cont. Geol.
migrans, Con., Pro. Acad. i.
minor, Lea, Cont. Geol.
Mississippiensis, Con., Pro. Acad. iii.
Mortoni, Lea, Cont. Geol.
nanus, Lea, " "
ornatus, Lea, " "
pachyleurus, Con., Jour. Acad. viii.
papillatus, Con., Tert. Foss.
parilis, Con., " "
parvus, Lea, Cont. Geol.
perlatus, Con., Sil. Jour. i. N. S.
prorutus, Con., Tert. Foss.
proscissus, Con., Tert. Foss.
protextus, Con., " "
pulcher, Lea, Cont. Geol.
pumilis, Lea, " "
pygmæus, H. C. Lea, Trans. Phil. xi.
quadricostatus, Say, Jour. Acad. iv.
ranelloides, Con., Tert. Foss.
raphanoides, Con., Jour. Acad. vii.
rusticus, Con., " " vi.
salebrosus, Con., Jour. Acad. vii.
F. sexangulus, Con., Jour. Acad. vii.
spiniger, Con., Pro. Acad. iii.
stamineus, Con., Tert. Foss.
strumosus, Con., " "
sulcosus, Con., " "
symmetricus, Con., Jour. Acad. vii.
Taitii, Lea, Cont. Geol.
tetricus, Con., Tert. Foss.
thalloides, Con., " "
thoracicus, Con., " "
trabeatus, Con., " "
trossulus, Con., " "
venustus, Lea, Cont. Geol.
Vicksburgensis, Con., Pro. Acad. iii.

Gastrochæna.

G. ligula, H. C. Lea, Trans. Phil. ix.

Gnathadon.

G. cuneatus, Gray, Sil. Jour. xxviii.
Grayi, Con., " " xxxviii.
minor, Con., " " xli.

Gratelupia.

G. Moulinsii, Lea, Cont. Geol.

Gryphæa.

G. vomer, Morton, Jour. Acad. vi.

Hiatella.

H. lancea, H. C. Lea, Trans. Phil. ix.

Hippagus.

H. isocardiodes, Lea, Cont. Geol.

Hipponix.

H. pygmæus, Lea, Cont. Geol.

Infundibulum.

I. carinatum, Con., Pro. Acad. iii.
centrale, Con., Sil. Jour. xli.
concentricum, H. C. Lea, Trans. Phil. ix.
gyrinum, Con., Jour. Acad. vii.
perarmatum, Con., " " viii.
trochiforme, Lea, Cont. Geol.
urticosum, Con., Tert. Foss.

Isocardia.

I. fraterna, Say, Jour. Acad. iv.
Markoëi, Con., Nat. Inst. No. 2.
rustica, Sow., Med. Tert.

Kellia.

K. fabagella, Con., Pro. Acad. i.
mactroides, Con., " " "

Lepton.

L. mactroides, Con., Jour. Acad. viii.

Lima.

L. papyria, Con., Journ. Acad. viii.
staminea, Con., Pro. Acad. iii.

Lithodomus.

L. dactylus, Sil. Jour. i. N. S.

Littorina.

L. antiquata, Con., Tert. Foss.

Loripfs.

L. Americana, Con., Pro. Acad. i.
eburnea, Con., " " iii.
elevata, Con., " " i.
turgida, Con., " " iii.

Lucina.

L. acclinis, Con., Tert. Foss.
alveata, Con., " "
anodonta, Say, Jour. Acad. iv.
carinifera, Con., Tert. Foss.
compressa, Lea, Cont. Geol.
contracta, Say, Jour. Acad. iv.
cornuta, Lea, Cont. Geol.
crenulata, Con., Sil. Jour. xli.
cribraria, Say, Jour. Acad. iv.
divaricata, Lam., " " "
dolabra, Con., Tert. Foss.
Foremani, Con., Jour. Acad. viii.
impressa, Lea, Cont. Geol.
Jamaicensis, Lam., Sil. Jour. i. N. S.
lens, H. C. Lea, Trans. Phil. ix.
lunata, Lea, Cont. Geol.
metastriata, Con., Med. Geol.
Mississippiensis, Con., Pro. Acad. iii.
modesta, Con., Sil. Jour. i. N. S.
multistriata, Con., Pro. Acad. i.
pandata, Con., Tert. Foss.
papyracea, Lea, Cont. Geol.
perlevis, Con., Pro. Acad. iii.
pomilia, Con., Tert. Foss.
punctulata, H. C. Lea, Trans. Phil. ix.
radians, Con., Sil. Jour. xli.
radula, Lam., " " i. N. S.
rotunda, Lea, Cont. Geol.
speciosa, Rogers, Trans. Phil. v.
squamosa, Lam., Med. Tert.
subobliqua, Say, Jour. Acad. iv.
subplanata, Con., " viii.
subvexa, Con., Tert. Foss.
symmetrica, Con., "
trisulcata, Con., Sil. Jour. xli.
undula, Con., Med. Tert.

Lutraria.

L. canaliculata, Say, Jour. Acad. vii.
lapidosa, Con., Sil. Jour. i. N. S.
papyria, Con., Tert. Foss.

Mactra.

M. clathrodon, Lea, Cont. Geol.
clathrodonta, Con., Sil. Jour. xxiii.
confraga, Con., " "
congesta, Con., " "
crassidens, Con., " xli.
decisa, Con., Tert. Foss.
delumbis, Con., " "
dentata, Lea, Cont. Geol.
fragrosa, Con., Sil. Jour. xxiii.
funerata, Con., Pro. Acad. iii.
grandis, Linn., Jour. Acad. vi.
Grayi, Lea, Cont. Geol.
incrassata, Con., Med. Tert.
lateralis, Say, Jour. Acad. vii.
Mississippiensis, Con., Pro. Acad. iii.
modicella, Con., Sil. Jour. xxiii.
parilis, Con., Tert. Foss.
M. ponderosa, Con., Jour. Acad. vi.
prætenuis, Con., Tert. Foss.
pygmæa, Lea, Cont. Geol.
subcuneata, Con., Nat. Inst. No. 2.
subparilis, Con., Sil. Jour. xli.
solidissima, Chem., " xxviii.
tellinoides, Con., " "
triquetra, Con., Pro. Acad. i.

Marginella.

M. anatina, Lea, Cont. Geol.
biplicata, Lea, " "
columba, Lea, " "
conulus, H. C. Lea, Trans. Phil. ix.
crassilabra, Con., Tert. Foss.
crassilabra, Lea, Cont. Geol.
denticulata, Con., Jour. Acad. vi.
eburneola, Con., " vii.
exilis, H. C. Lea, Trans. Phil. ix.
incurva, Lea, Cont. Geol.
larvata, Con., Tert. Foss.
limatula, Con., Jour. Acad. vii.
ovata, Lea, Cont. Geol.
plicata, Lea, " "
perexigua, Con., Jour. Acad. viii.
semen, Lea, Cont. Geol.

Melania.

M. vetusta, Con., Tert. Foss.

Melongena.

M. alveata, Con., Sil. Jour. xxiii.
armigera, Con., Tert. Foss.
crassicornuta, Con., Pro. Acad. iii.

Mitra.

M. bolaris, Con., Tert. Foss.
Carolinensis, Con., Sil. Jour. xli.
cellulifera, Con., Pro. Acad. iii.
conquisita, Con., " " "
doliata, Con., Tert. Foss.
eburnea, H. C. Lea, Sil. Jour. xl.
elegans, H. C. Lea, " "
Flemingii, Lea, Cont. Geol.
fusoides, Lea, " "
gracilis, H. C. Lea, Sil. Jour. xl.
Humboldtii, Lea, Cont. Geol.
lineata, Lea, " "
minima, Lea, " "
Mississippiensis, Con., Pro. Acad. iii.
pactilis, Con., Tert. Foss.
perexilis, Con., " "
staminea, Con., Pro. Acad. iii.
Vicksburgensis, Con., " "

Modiola.

M. cretacea, Con., Trans. Geol.
Ducatelli, Con., Med. Tert.
Mississippiensis, Con., Pro. Acad. iii.
spingera, H. C. Lea, Trans. Phil. ix.

Monoceras.

M. armigerum, Con., Tert. Foss.
fusiforme, Lea, Cont. Geol.
pyruloide, Lea, " "
sulcatum, Lea, " "

M. vetustum, Con., Tert. Foss.

MONODONTA.

M. exoluta, Con., Pro. Acad. i.
glandula, Con., Jour. Acad. vi.

MONOPTYGMA.

M. Alabamiensis, Lea, Cont. Geol.
elegans, Lea, “ “

MUREX.

M. acuticosta, Con., Jour. Acad. vi.
alternatus, Lea, Cont. Geol.
engonatus, Con., Tert. Foss.
Mantellii, Con., Jour. Acad. vii.
Mississippiensis,Con., Pro. Acad.iii.
septemnarius, Con., Jour. Acad. vii.
umbrifer, Con., Tert. Foss.

MYA.

M. arenaria, Linn., Sil. Jour. xxviii.
corpulenta, Con., Med. Tert.
mercenaria, Say, Jour. Acad. vi.
prælonga, Con., Nat. Inst. No. 2.
producta, Con., Med. Tert.
reflexa, H. C. Lea, Trans. Phil. ix.

MYALINA.

M. subovata, Con., Med. Tert.

MYOCONCHA.

M. incurva, Con., Med. Tert.

MYODORA.

M. arenosa, Con., Pro. Acad. iii.

MYOPARO.

M. costatus, Lea, Cont. Geol.

MYSIA.

M. Americana, Con., Med. Tert.
nucleiformis, Wagner, Jour. Acad. viii.
rotundata, Sil. Jour. xxviii.

MYTILUS.

M. hamatus, Say, Sil. Jour. xxviii.
incrassatus, Con., “ xli.

NARICA.

N. Mississippiensis,Con., Pro. Acad.iii.

NASSA.

N. cancellata, Lea, Cont. Geol.
impressa, H. C. Lea, Trans. Phil.ix.
lunata, Say, Sil. Jour. i. N. S.
obsoleta, Say, “ xxviii.
quadrata, Con., Jour. Acad. vi.
trivittata, Say, Sil. Jour. xxviii.

NATICA.

N. ætites, Con., Tert. Foss.
aperta, H. C. Lea, Trans. Phil. ix.
canrena, Lam., Sil. Jour. xli.
Caroliniana, Con., “ “
crassilabrum, H. C. Lea, Trans. Phil. ix.
duplicata, Say, Sil. Jour. xli.
eborea, Con., Tert. Foss.
eminula, Con., “ “
fragilis, Con., Jour. Acad. vi.
gibbosa, Lea, Cont. Geol.
heros, Say, Sil. Jour. xli.
N. interna, Say, Jour. Acad. iv.
limula, Con., Tert. Foss.
magno-umbilicata, Lea, Cont. Geol.
mamma, Lea, “ “
minima, Lea, “ “
minor, Lea, “ “
Mississippiensis,Con., Pro. Acad.iii.
parva, Lea, Cont. Geol.
percallosa, Con., Sil. Jour. xli.
perspectiva, Rogers, Trans. Phil. v.
semilunata, Lea, Cont. Geol.
sphærulus,H. C. Lea, Trans. Phil.ix.
striata, Lea, Cont. Geol.
Vicksburgensis, Con., Pro. Acad.iii.

NAUTILOPSIS.

N. Vanuxemi, Con., Pro. Acad. iii.

NAUTILUS.

N. Alabamiensis, Morton, Jour. Acad. viii.

NUCULA.

N. Acuta, Con., Sil. Jour. xxviii.
acutidens,H. C. Lea, Trans. Phil.ix.
æqualis, Con., Tert. Foss.
æquilatera, H. C. Lea, Trans, Phil. ix.
antiqua, Mighels, Bost. Jour. iv.
bella, Con., Sil. Jour. xxiii.
Brogniarti, Lea, Cont. Geol.
calcariensis, Con., Pro. Acad. iii.
carinata, H. C. Lea, Trans. Phil. ix.
carinifera, Lea, Cont. Geol.
Carolinensis, Con., Pro. Acad. iii.
cælata, Con., Sil. Jour. xxiii.
concentrica, Say, Jour. Acad. iv.
cultelliformis,Rogers,Trans.Phil.iv.
diaphana, H. C. Lea, “ “ ix.
dolabella, H. C. Lea, “ “ “
Jacksonii, Gould, Bost. Jour. iv.
lævis, Say, Jour. Acad. iv.
liciata, Con., Pro. Acad. i.
limatula, Say, Sil. Jour. xxvii.
magna, Lea, Cont. Geol.
magnifica, Con., Tert. Foss.
media, Lea, Cont. Geol.
mucronata, Con., Pro. Acad. iii.
obliqua, Say, Sil. Jour. ii.
opulenta, Con., Tert. Foss.
ovula, Lea, Cont. Geol.
parva, Rogers, Trans. Phil. v.
pectuncularis, Lea, Cont. Geol.
plana, Lea, “ “
plicata, Lea, “ “
Portlandica,Hitchcock, Bost. Jour.i.
proxima, Say, Sil. Jour. xxviii.
pulcherrima, Lea, Cont. Geol.
Sedgwickii, Lea, “ “
semen, Lea, “ “
serica, Con., Pro. Acad. iii.
subtrigona, Con., “ “
tellinula, Con., Sil. Jour. ii. N. S.

N. Vicksburgensis,Con.,Pro. Acad. iii.
NUMMULITES.
N. Floridanus, Con., Sil. Jour. ii. N. S.
Mantelli, Morton, " xxiii.
ODOSTOMIA.
O. limnea, Con., Pro. Acad. iii.
protexta, Con., " " "
OLIVA.
O. Alabamensis, Con., Tert. Foss.
ancillariæformis, H. C. Lea, Trans. Phil. ix.
bombylis, Con., Tert. Foss.
canaliculata, H. C. Lea, Trans. Phil. ix.
Carolinensis, Nat. Inst. No. 2.
constricta, Lea, Cont. Geol.
dubia, Lea, " "
duplicata, Con., Pro. Acad. i.
gracilis, Lea, Cont. Geol.
Greenoughi, Lea, "
idonea, Sil. Jour. xli.
litterata, Lam., Jour. Acad. vii.
minima, Lea, Cont. Geol.
Mississippiensis,Con.,Pro.Acad.iii.
mutica, Lam., Sil. Jour. xli.
Phillipsii, Lea, Cont. Geol.
zonalis, Lam., Jour. Acad. vii.
ONISCIA.
O. harpula, Con., Pro. Acad. iii.
ORBICULA.
O. lugubris, Con., Sil. Jour. xli.
multilineata, Con., Med. Tert.
ORBIS.
O. rotella, Lea, Cont. Geol.
OSTREA.
O. Alabamensis, Lea, Cont. Geol.
bellovacina, Nat. Inst.
Carolinensis, Con., Tert. Foss.
compressirostra, Say, Jour. Acad. iv.
disparilis, Con., Med. Tert.
cretacea, Morton, Jour. Acad. viii.
flabellula, Lam., " " vi.
Georgiana, Con., " " vii.
divaricata, Lea, Cont. Geol.
lingua-canis, Lea, " "
lateralis, Nillson, Nat. Inst.
panda, Morton, " "
percrassa, Con., Med. Tert.
pincerna, Lea, Cont. Geol.
radians, Con., Tert. Foss.
sculpturata, Con., Med. Tert.
sellæformis, Con., Tert. Foss.
semilunata, Lea, Cont. Geol.
sinuosa, Rogers, Trans. Phil. v.
subfalcata, Con., Med. Tert.
Vicksburgensis, Con., Pro. Acad. iii.
Virginiana, Gmel., Tert. Foss.
OVULA.
O. iota, Con., Pro. Acad. iii.
PALUDINA.
P. glabra, Con., Pro. Acad. i.
PANDORA.
P. arenosa, Con., Jour. Acad. vii.
crassidens, Con., Med. Tert.
trilineata, Say, Sil. Jour. xxviii.
PANOPÆA.
P. abrupta, Con., Pro. Acad. i.
Americana, Con., Med. Tert.
dubia, H. C. Lea, Trans. Phil. ix.
elongata, Con., Trans. Geol.
Goldfussii, Wagner, Jour. Acad. viii.
oblongata, Con., Pro. Acad. iii.
porrecta, Con., Med. Tert.
reflexa, Say, Jour. Acad. iv.
PASITHEA.
P. aciculata, Lea, Cont. Geol.
alveata, Lea, " "
cancellata, H. C. Lea, Sil. Jour. xl.
Clairbornensis, Lea, Cont. Geol.
diaphana, H. C. Lea, Trans. Phil. ix.
eburnea, H. C. Lea, " " "
elegans, H. C. Lea, Sil. Jour. xl.
exarata, H. C. Lea, Trans. Phil. ix.
guttula, Lea, Cont. Geol.
lævigata, H. C. Lea, Trans. Phil. ix.
lugubris, Lea, Cont. Geol.
minima, H. C. Lea, Sil. Jour. xl.
notata, Lea, Cont. Geol.
ornata, H. C. Lea, Trans. Phil. ix.
ovulum, H. C. Lea, " " "
secale, Lea, Cont. Geol.
striata, Lea, " "
subula, H. C. Lea, Trans. Phil. ix.
sulcata, Lea, Cont. Geol.
turbinopsis, H. C. Lea, Trans. Phil. ix.
umbilicata, Lea, Cont. Geol.
PATELLA.
P. acinaces, H. C. Lea, Trans. Phil. ix.
PECTEN.
P. anatipes, Morton, Trans. Phil. ix.
biformis, Con., Pro. Acad. i.
calvatus, Morton, Jour. Acad. viii.
Clintonius, Say, " " iv.
concentricus, Say, Sil. Jour. xxviii.
decemnarius, Con., Jour. Acad. vii.
Deshaysii, Lea, Cont. Geol.
dislocatus, Say, Nat. Inst. No. 2.
dispalatus, Con., Med. Tert.
eboreus, Con., Sil. Jour. xxiii.
elixatus, Con., Pro. Acad. ii.
Holbrookii, Ravenel, "
Humphreysii, Con., Nat. Inst. No. 2.
Jeffersonius, Say, Jour. Acad. iv.
Lyelli, Lea, Cont. Geol.
Madisonius, Say, Jour. Acad. ix.
Magellanicus, Lam., " " vii.
Marilandicus, Wagner, " viii.

P. membranosus, Morton, Jour. Acad. viii.
micropleura, H. C. Lea, Trans. Phil. ix.
Mortoni, Ravenel, Pro. Acad. ii.
perplanus, Morton, Sil. Jour. xxiii.
Poulsoni, Morton, Jour. Acad. viii.
purpuratus, Lam., Sil. Jour. xxviii.
Rogersii, Con., Jour. Acad. vii.
septenarius, Say, " iv.
tenuis, H. C. Lea, Trans. Phil. ix.
tricenarius, Con., Pro. Acad. i.
vicenarius, Con., " " "
Virginianus, Con., Med. Tert.

PECTUNCULUS.

P. aratus, Con., Sil. Jour. xli.
arctatus, Con., Pro. Acad. iii.
aviculoides, Con., Tert. Foss.
Broderipii, Lea, Cont. Geol.
Carolinensis, Con., Sil. Jour. xli.
circularis, Con., " " xxviii.
corbuloides, Con., Tert. Foss.
cuneus, Con., Sil. Jour. xxiii.
decisus, Con., Tert. Foss.
declivis, Con., " "
deltoideus, Lea, Cont. Geol.
elephantopus, H. C. Lea. Trans. Phil. ix.
ellipsis, Lea, Cont. Geol.
idoneus, Con., Tert. Foss.
lentiformis, Con., Nat. Inst. No. 2.
minor, Lea, Cont. Geol.
oliqua, Lea, " "
parilis, Con., Pro. Acad. i.
passus, Con., Med. Tert.
pectinatus, Lam., Sil. Jour. xxviii.
perplanus, Con., Jour. Acad. vii.
pulvinatus, Lam., Tert. Foss.
quinquerugatus, Con., Sil. Jour. xli.
stamineus, Con., " " xxiii.
subovatus, Say, Jour. Acad. iv.
tricenarius, Con., Med. Tert.
trigonella, Con., Sil. Jour. xxiii.
tumulus, Con., Med. Tert.
variabilis, Sow., Jour. Acad. vi.

PERIPLOMA.

P. antiqua, Con., Jour. Acad. vii.

PERNA.

P. torta, Say, Sil. Jour. ii.
maxillata, Lam., Med. Tert.

PETALOCONCHUS.

P. sculpturatus, H. C. Lea, Trans. Phil. ix.

PETRICOLA.

P. cenrenaria, Con., Sil. Jour. xxiii.
fornicata, Say, Jour. Acad. vi.
compressa, H. C. Lea, Trans. Phil. ix.
pholadiformis, Lam., Jour. Acad. vi.

PHOLADOMYA.

P. abrupta, Con., Tert. Foss.
Marilandica, Con., Nat. Inst. No. 2.

PHOLAS.

P. acuminata, Con., Med. Tert.
arcuata, Con., Nat. Inst. No. 2.
costata, Linn., Sil. Jour. xxviii.
ovalis, Say, " " ii.
petrosa, Con., Nat. Inst. No. 2.
rhomboidea, H. C. Lea, Trans. Phil. ix.
triquetra, Con., Pro. Acad. iii.

PHORUS.

P. humilis, Con., Pro. Acad. iii.

PINNA.

P. argentea, Con., Pro. Acad. iii.

PLAGIOSTOMA.

P. dumosum, Morton, Jour. Acad. viii.

PLANARIA.

P. nitens, Lea, Cont. Geol.

PLEUROTOMA.

P. abundans, Con., Pro. Acad. iii.
alternatum, Con., Tert. Foss.
Beaumontii, Lea, Cont. Geol.
bellacrenatum, Con., Jour. Acad. viii.
biscatenarium, Con., " vii.
cælatum, Lea, Cont. Geol.
cancellatum, H. C. Lea, Sil. Jour. xl.
catenatum, Con., Jour. Acad. vi.
Childreni, Lea, Cont. Geol.
cochleare, Con., Pro. Acad. iii.
commune, Con., Jour. Acad. vi.
congestum, Con., Pro. Acad. iii.
cristatum, Con., " " "
declivum, Con., " " "
depyge, Con., Tert. Foss.
Desnoyersii, Lea, Cont. Geol.
dissimile, Con., Jour. Acad. vi.
eboroide, Con., Pro. Acad. iii.
elaboratum, Con., Tert. Foss.
elongatum, Con., Jour. Acad. vi.
gracile, Con., " " "
Hæninghausii, Lea, Cont. Geol.
inciliferum, Con., Jour. Acad. vii.
Lesueurii, Lea, Cont. Geol.
limatulum, Con., Jour. Acad. vi.
Lonsdalii, Lea, Cont. Geol.
lunatum, H. C. Lea, Trans. Phil. ix.
Marilandicum, Con. Jour. Acad. viii.
Mississippiense, Con., Pro. Acad. iii.
moniliferum, Lea, Cont. Geol.
multisectum, Con., Pro. Acad. i.
nuperum, Con., Tert. Foss.
obliquum, Lea, Cont. Geol.
parvum, Con., Jour. Acad. vi.
porcellanum, Con., Pro. Acad. iii.
pyrenoide, Con., Jour. Acad. vii.
rotædens, Con., Pro. Acad. iii.
rotiferum, Con., Jour. Acad. vi.

P. rugosum, Lea, Cont. Geol.
Sayi, Lea, “ “
servatum, Con., Pro. Acad. iii.
tabulatum, Con., Tert. Foss.
tantulum, Con., Pro. Acad. iii.
tenellum, Con., “ “
tricatenarium, Con., Jour. Acad. vii.
Virginianum, Con., “ “

Plicatula.

P. densata, Con., Pro. Acad. i.
filamentosa, Con., Tert. Foss.
Mantellii, Lea, Cont. Geol.
marginata, Say, Jour. Acad. iv.
ramosa, Lam., “ “ vi.
rudis, H. C. Lea, Trans. Phil. ix.

Proto.

P. vetusta, Con., Jour. Acad. vii.

Psammobia.

P. eborea, Con., Tert. Foss.
filosa, Con., “ “
fusca, Say, Jour. Acad. vi.
lintea, Con., Pro. Acad. iii.
lusoria, Say, Jour. Acad. vi.
papyria, Con., Pro. Acad. iii.

Psammocola.

P. lucinoides, H. C. Lea, Trans. Phil. ix.
regia, H. C. Lea, “ “ “

Pyramidella.

P. arenosa, Con., Pro. Acad. i.
elaborata, H. C. Lea, Trans. Phil. ix.
larvata, Con., Tert. Foss.
suturalis, H. C. Lea, Trans. Phil. ix.

Pyrula.

P. canaliculata, Linn., Jour. Acad. iv.
cancellata, Lea, Cont. Geol.
carica, Gmel.
elegantissima, Lea, Cont. Geol.
penita, Con., Tert. Foss.
perversa, Lam., Sil. Jour. xli.
Smithii, Lea, Cont. Geol.
sulcosa, Con., Jour. Acad. vi.
tricarinata, Lam., Nat. Inst. No. 2.

Ranella.

R. caudata, Say, Sil. Jour. xxviii.

Rangia.

R. cyrenoides, Des Moulins, Sil. Jour. xxviii.

Ringicula.

R. Mississippiensis, Con., Pro. Acad. iii.

Rostellaria.

R. Cuvieri, Lea, Cont. Geol.
laqueata, Con., Tert. Foss.
Lamarckii, Lea, Cont. Geol.
velata, Con., Tert. Foss.

Rotella.

R. carinata, H. C. Lea, Trans. Phil. ix.
lenticularis, H. C. Lea, “ “ “
nana, Lea, Cont. Geol.
subconica, H. C. Lea, Trans. Phil. ix.
R. umbilicata, H. C. Lea, Trans. Phil. ix.

Sanguinolaria.

S. fusca, Con., Sil. Jour. xxviii.
lusoria, Say, “ “ “

Saxicava.

S. bilineata, Con., Med. Tert.
distorta, Say, Jour. Acad. vi.
pectorosa, Con., Jour. Acad. vii.
rugosa, Lam., Nat. Inst. No. 2.

Scalaria.

S. acicula, H. C. Lea, Trans. Phil. ix.
carinata, Lea, Cont. Geol.
clathra, Lam., Nat. Inst. No. 2.
cornigera, H. C. Lea, Trans. Phil. ix.
elegans, H. C. Lea, Sil. Jour. xl.
expansa, Con., Nat. Inst. No. 2.
lineata, Say, Sil. Jour. xxviii.
micropleura, H. C. Lea, Trans. Phil. ix.
microstoma, H. C. Lea, “ “
nassula, Con., Tert. Foss.
pachypleura, Con., Jour. Acad. viii.
planulata, Lea, Cont. Geol.
procera, Con., Pro. Acad. i.
quinquefasciata, Lea, Cont. Geol.
sessilis, Con., Tert. Foss.
trigintanaria, Con., Pro. Acad. iii.
venusta, H. C. Lea, Sil. Jour. xl.

Scobinella.

S. cælata, Con., Pro. Acad. iii.

Serpula.

S. anguina, H. C. Lea, Trans. Phil. ix.
convoluta, H. C. Lea, “ “ “
granifera, Say, Jour. Acad. iv.
ornata, Lea, Cont. Geol.
squamulosa, Con., Jour. Acad. vii.

Sigaretus.

S. arctatus, Con., Tert. Foss.
bilix, Con., Sil. Jour. xxiii.
canaliculatus, Sow., Nat. Inst. No. 2.
declivis, Con., Tert. Foss.
fragilis, Nat. Inst. No. 2.
Mississippiensis, Con., Pro. Acad. iii.

Siliquaria.

S. Claibornensis, Lea, Cont. Geol.
vitis, Con., Tert. Foss.

Solarium.

S. alveatum, Con., Tert. Foss.
amœnum, Con., “ “
antrosum, Con., “ “
bilineatam, Lea, Cont. Geol.
canaliculatum, Lea, Nat. Inst. No. 2.
cancellatum, Con., Sil. Jour. xxiii.
elaboratum, Con., “ “ “
elegans, Lea, Cont. Geol.
exacuum, Con., Tert. Foss.
funginum, Con., “ “
granulatum, Lea, Cont. Geol.
Henrici, Lea, “ “

S. nuperum, Con., Jour. Acad. vii.
ornatum, Lea, Cont. Geol.
patulum, Lam., Nat. Inst. No. 2.
scrobiculatum, Con., Tert. Foss.
stalagmium, Con., “ “
trilineatum, Con., Jour. Acad. vii.
triliratum, Con., Pro. Acad. iii.

SOLECURTUS.

S. Blainvilli, Lea, Cont. Geol.
Cariboeus, Linn., Sil. Jour. xxviii.

SOLEN.

S. ensiformis, Con., Pro. Acad. i.
ensis, Linn., Sil. Jour. xxxviii.
directus, Con., Pro. Acad. i.
magnodentatus, H. C. Lea, Trans. Phil. ix.

SPHÆRELLA.

S. subvexa, Con., Med. Tert.

SPIRORBIS.

S. tubanella, Lea, Cont. Geol.

STALAGMIUM.

S. margaritaceum, Con., Tert. Foss.

STRIGILLA.

S. carnaria, Turton, Sil. Jour. xxviii.

TELLINA.

T. æquistriata, Say, Jour. Acad. iv.
alta, Con., Tert. Foss.
alternata, Say, Nat. Inst. No. 2.
arctata, Con., Pro. Acad. i.
biplicata, Con., Jour. Acad. vii.
declivis, Con., “ “ “
egena, Con., “ “ “
lenis, Con., Pro. Acad. i.
lintea, Con., Jour. Acad. vii.
lusoria, Con., Med. Tert.
papyria, Con., Tert. Foss.
pectorosa, Con., Pro. Acad. iii.
plana, Con., Sil. Jour. i. N. S.
producta, Con., Med. Tert.
Ravenelli, Con., Sil. Jour. i. N. S.
scandula, Con., Jour. Acad. vii.
serica, Con., Pro. Acad. iii.
Sillimani, Con., Sil. Jour. i. N. S.
subæqualis, Con., Pro. Acad. iii.
Vicksburgensis, Con. “ “ “

TEREBRA.

T. constricta, H. C. Lea, Sil. Jour. xl.
costata, Lea, Cont. Geol.
curvilirata, Con., Pro. Acad. i.
dislocata, Con., Sil. Jour. xxiii.
divisura, Con., “ “ “
gracilis, Lea, Cont. Geol.
loxonema, Con., Nat. Inst. No. 2.
multiplicata, H. C. Lea, Sil. Jour. xl.
polygyra, Con., Jour. Acad. vii.
simplex, Con., Jour. Acad. vi.
tantula, Con., Pro. Acad. iii.
venusta, Lea, Cont. Geol.

TEREBRATULA.

T. canipes, Ravenel, Pro. Acad. ii.
lachryma, Morton, Jour. Acad. viii.

TEREDO.

T. calamus, H. C. Lea, Trans. Phil. ix.
fistula, H. C. Lea, “ “ “
simplex, Lea, Cont. Geol.

THRACIA.

T. transversa, H. C. Lea, Trans. Phil. ix.

TRIQUETRA.

T. æquorea, Con., Sil. Jour. i. N. S.
rectilinearis, Con., “ “

TRITON.

T. abbreviatus, Con., Pro. Acad. iii.
crassidens, Con., “ “ “
Mississippiensis, Con., “ “
pyramidatus, H. C. Lea, Sil. Jour. xl.

TROCHUS.

T. agglutinans, Auct., Sil. Jour. i. N. S.
aratus, H. C. Lea, Trans. Phil. ix.
armillus, H. C. Lea, “ “ “
bellus, Con., Jour. Acad. vii.
conus, H. C. Lea, Trans. Phil. ix.
eboreus, Wagner, Jour. Acad. viii.
humilis, Con., “ “ vi.
labrosus, Con., “ “ vii
lapidosus, Con., “ “ “
lens, H. C. Lea, Trans. Phil. ix.
Mitchell, Con., Jour. Acad. vii.
peralveatus, Con., “ viii.
philanthropus, Con., “ vii.
planulatus, H. C. Lea, Sil. Jour. xl.
Ruffinii, H. C. Lea, Trans. Phil. ix.
reclusus, Con., Jour. Acad. vi.
torquatus, H. C. Lea, Trans. Phil. ix

TUBA.

T. alternata, Lea, Cont. Geol.
striata, Lea, “ “
sulcata, Lea, “ “

TURBINELLA.

T. demissa, Con., Jour. Acad. vii.
fusoides, H. C. Lea, Sil. Jour. xl.
perexilis, Con., Pro. Acad. iii.
prætenuis, Con., Tert. Foss.
prisca, Con., “ “
protracta, Con., Pro. Acad. iii.
pyruloides, Con., Tert. Foss.
Wilsoni, Con., Pro. Acad. iii.

TURBO.

T. biliratus, Con., Pro. Acad. iii.
caperatus, Con., Jour. Acad. vii.
glaber, H. C. Lea, Trans. Phil. ix.
lineatus, Lea, Cont. Geol.
naticoides, Lea, “ “
nitens, Lea, “ “
parvus, H. C. Lea, Sil. Jour. xl.
rusticus, H. C. Lea, Trans. Phil. ix.

TURRITELLA.
T. alternata, Say, Sil. Jour. xxviii.
alticostata, Con. Jour. Acad. vii.
bipertita, Con., Pro. Acad. i.
carinata, Lea, Cont. Geol.
carinata, H. C. Lea, Sil. Jour. xl.
exaltata, Con., Jour. Acad. vi.
fluxionalis, Rogers, Trans. Phil. vi.
gracilis, H. C. Lea, Sil. Jour. xl.
humerosa, Con., Trans. Geol.
indenta, Con., Jour. Acad. viii.
laqueata, Con., " " vi.
lineata, Lea, Cont. Geol.
Mississippiensis, Con., Pro. Acad. iii.
Mitchelli, Sil. Jour. xli.
monilifera, H. C. Lea, Sil. Jour. xl.
Mortoni, Con., Jour. Acad. vi.
obruta, Con., Tert. Foss.
octonaria, Con., Jour. Acad. vii.
perlaqueata, Con., " " viii.
plebeia, Say, " " iv.
quadristriata, Rogers, Trans. Phil. v.
terstriata, Rogers, " " "
variabilis, Con.. Jour. Acad. vi.
TYPHIS.
T. acuticosta, Con., Sil. Jour. xxiii.
curvirostratus, Con., Pro. Acad. iii.
gracilis, Con., Sil. Jour. xxiii.
VENERICARDIA.
V. ascia, Rogers, Trans. Phil. vi.
Blandingi, Con., Jour. Acad. vi.
granulata, Say, " " iv.
parva, Lea, Cont. Geol.
planicosta, Lam., Jour. Acad. vi.
rotunda, Lea, Cont. Geol.
Sillimani, Lea, " "
transversa, Lea, " "
VENERUPIS.
V. subvexa, Con., Sil. Jour. xxiii.
VENUS.
V. alveata, Con., Jour. Acad. vi.
V. ascia, H. C. Lea, Trans. Phil. ix.
cancellata, Linn., Sil. Jour. xxviii.
capax, Con., Pro. Acad. i.
cortinaria, Rogers, Trans. Phil. vi.
cribraria, Con., Pro. Acad. i.
deformis, Say, Jour. Acad. iv.
Ducatelli, Con., Med. Tert.
Floridana, Con., Sil. Jour. ii. N. S.
inosceriformis, Wagner, Jour. Acad. viii.
latilirata, Con., Pro. Acad. i.
latèsulcata, Con., Med. Tert.
mercenaria, Linn., Sil. Jour. xli.
metastriata, " " i. N.S.
Mortoni, Con., Jour. Acad. vii.
paphia, (?) Lam., " " vi.
penita, Con., Sil. Jour. ii. N. S.
permagna, Con., Nat. Inst. No. 2.
Rileyi, Con., Med. Tert.
staminea, Con., Nat. Inst. No. 2.
tetrica, Con., " " "
tridacnoides, Con., Med. Tert.
VERMETUS.
V. lumbricalis, Lam., Sil. Jour. xxviii.
VOLUTA.
V. Carolinensis, Sil. Jour. xxxix.
Cooperi, Lea, Cont. Geol.
Defrancii, Lea, " "
dubia, H. C. Lea, Sil. Jour. xl.
gracilis, Lea, Cont. Geol.
Lamberti, Sow., Jour. Acad. vi.
Parkinsoni, Lea, Cont. Geol..
mutabilis, Con., Pro. Acad. i.
parva, Lea, Cont. Geol.
petrosa, Con., Tert. Foss.
Sayana, Con., " "
solitaria, Con., Jour. Acad. vi.
striata, Lea, Cont. Geol.
Vanuxemi, Lea, " "
VOLVARIA.
V. galba, Con., Tert. Foss.

ELECTION OF CORRESPONDENTS.

J. P. Kirtland, M. D., Cleveland, Ohio.
Prof. J. Cobb, M. D., Louisville, Kentucky.
Prof. L. P. Yandell, M. D., do. do.
Benjamin E. Shumard, M.D., do. do.
Right Rev. George W. Doane, Burlington, N. J.
Edward Tuckerman, Esq., Cambridge, Mass.
M. Fischer de Waldheim, Moscow.